2012 Annual Summary

The first half of **January** continued with where 2011 left off with dry and seasonable weather. Temperatures on the 4th warmed into the 50s in parts of southeast Washington and the southern Panhandle. La Crosse and Pomeroy, WA hit 60°F and 59°F respectively, both records for the day. By the middle of the month changes were in sight. The storm door opened providing some much needed moisture to most of the region. The first in the series of storms primarily struck the central Panhandle and Cascades. Wallace and Mullan, ID reported 14" of snow as well as Chelan which received a foot of snow on the 17th. Southeast Washington and the southern Panhandle were next in line with heavy snow. Many locations received around a foot of snow including Pomeroy and La Crosse along with Deary and Nez Perce in Idaho. Lewiston picked up 8.4" of snow, which ranked 4th on the all-time list of 24-hour snowfall (record is 11" in 1916). For some locations like Plain, WA and St Maries, ID, the combination of these 2 storms resulted in more than 2 feet of snow. By the 19th a third storm rolled in bringing more snow. Spokane received around 10" and Rosalia, WA picked up 13". Localized freezing rain on the 20th resulted in numerous accidents in Spokane. After a brief break, another Pacific storm brought 10-15" of snow to the Methow Valley on the 25th. This was followed up by up to a ¼" of freezing rain in the Methow on the morning of the 29th. The stormy second half of January made up for the dryness of the first half of the month, but couldn't overcome the precipitation deficit of November/December.

February was fairly average weather-wise. The first half of the month was fairly mild, so most of the valley precipitation fell in the form of rain or light snow. The 18th saw the first widespread snow event with 2-5" falling over the northern valleys. A strong jet stream brought winds in excess of 50 mph to the area on the 22nd. Several locations in southeast Washington gusted to near 60 mph, while a DOT sensor at Shirrod Hill south of Moscow reported a gust to 90 mph. Three days later a strong low pressure system developed over northern Idaho. This brought the combination of strong winds and snow to the Panhandle and extreme eastern Washington. Bonners Ferry, ID picked up nearly 10" of snow overnight. Spokane County reported 125 collision accidents during the day. Fourth of July Pass was also closed at one point due to accidents. The weather took advantage of the one extra day this month, bringing more snow to the region. Most locations received 2-4" but Wenatchee picked up 4-7" making it the second snowiest event of the winter.

March can be summarized in one word: Wet! While the first 10 days of the month were largely dry, the last 3 weeks were anything but dry. Each day brought seemingly more rain, and by the end of the month, many locations had shattered their records for wettest March ever. Some of the more notable records were:

Location	March 2012 Precip	Old Record	Year of Old Record
Spokane	4.56	3.81	1995
Grand Coulee	4.13	2.64	1983
Newport	6.16	5.54	1945
Republic	4.90	3.48	1948
Rosalia	4.98	4.28	1989
Bonners Ferry	6.04	3.99	1950
Cabinet Gorge	7.40	6.40	1997
Coeur d'Alene	6.14	5.37	1916
Priest River	6.57	5.99	1945
Sandpoint	7.88	6.70	1997

Before the rain arrived, temperatures warmed into the 60s and lower 70s on the 9th, setting a few daily warm maximum temperature records. By the 12th, records for cold maximum temperatures were being set. Plain, Washington reached only 34 degrees with 7.2" of snowfall, while nearby Leavenworth received over 10". On the 15th an extremely wet weather system moved into the area setting precipitation records. Grand Coulee picked up 1.50", which was the 3rd wettest day in history for that location, dating back to 1934. The 1.18" of rain that fell at Spokane was the wettest March day ever. Meanwhile Wenatchee reached a high of only 38 degrees, which was the coldest daytime temperature for that day.

On the 21st and 22nd, a cold storm brought snow to several locations. The Spokane airport picked up 4.3" over the 2 days. Newport, WA had 6.1", Sandpoint 4.1", Pullman received 4.5" while Mullan, ID had 5.0" of snow. A spotter northeast of Moscow had 13" of snow! The last week of March continued the wet theme of the month. On the 27th Wenatchee Airport received 0.62" of rain, which was the 3rd wettest March day ever, records dating back to 1959.

All of the precipitation did bring some flooding. The heavy rain on the 15th resulted in widespread flood problems for northeast Washington and the northern Panhandle with numerous road washouts and some basement flooding. Heavy rain in the Moscow area on the 26th caused Paradise Creek to flood some parts of town. A few days later more rain brought the Palouse River above flood stage. Heavy rain on the 30th brought more flood problems with additional road washouts, mainly in north Idaho. As the month

ended, memories of a dry December were long gone, as most of the region now showed near or above normal precipitation for the season. Mountain snow pack, which had been running low through the winter, was now above normal.

The wet and cold weather continued into the first few days of **April**. An inch of snow fell on the 4th at the Spokane Airport. High temperatures on that day included a 37 at Sandpoint, 38 at St Maries, and 37 at Bayview (which tied the coldest high temperature for April set on the 24th in 1967). But just as folks were starting to dread a repeat of March in April, the weather pattern finally changed. High pressure built into the area, temperatures warmed, and the rain decreased considerably. There were still showers every few days, but nothing abnormally wet. The first truly warm spell of 2012 hit in late April, with many locations reaching the 70s and 80s for 4 straight days. The 82 and 87 at Wenatchee Airport on the 22nd and 23rd respectively were record highs for those dates. Priest Rapids Dam in Washington reached 91 on the 23rd, which was the earliest that they have ever reached 90 or better, which records dating back to 1956.

On average **May** tends to be wetter than April and sometimes March. But in 2012, this wasn't the case. Overall the month was drier than normal. But that didn't equate to warmth, as the month was actually a little cooler than normal as well. Much of the rain fell in the first few days with daytime temperatures stuck in the 50s. The high of 52 at Wenatchee on the 3rd was the coldest high temperature ever for that date. Although daytime temperatures gradually warmed, the air mass was so dry that nighttime temperatures would plummet after sunset. Lind, WA dropped to 26 degrees on the morning of the 11th, a record for the day. The town of Nez Perce in Idaho hit 22F, which was the coldest reading ever so late in the spring, with records going back to 1901.

But the middle of the month found another warm spell with temperatures soaring into the 80s and lower 90s. Several locations set record high temperatures on the 14th and 15th, including Wenatchee Airport with a record high 91 on the 15th. About the only really damaging weather event came from an unusually deep low pressure system over Oregon. It brought strong northeast winds to the area on the 25th. This caused numerous power outages and fanned the flames of a wild fire near Soap Lake, WA.

After a cool but dry May, attention turned to **June** to see how it would turn out. The answer came fairly quickly after the first few mild days. A cold and wet weather system moved into the region dropping temperatures into the 50s. The mercury only rose to 57 degrees in Wenatchee on the 7th, making this the coldest daytime temperature ever so late in the year. Several rainfall records were set on the 5th, including 1.11" at Colville and 1.05" at Sandpoint. On the 6th more rain fell, including 1.54" at Priest River and 1.33" at Newport. Several locations didn't reach 50 degrees that day; Mullan, ID had a high of only 46. Overnight freezing temperatures were reached on the morning of the 7th at Winthrop, Mazama, and Waterville. Certainly this was not summer. Temperatures

did warm back up to normal values by the middle of the month. But the rain continued to come every few days, especially at Bonners Ferry, ID, where the monthly total of 5.24" was a record for June. Grand Coulee picked up 1.23" of rain on the 26th, a record for the day. When it was all said and done, June 2012 was most decidedly not a summer month.

As the calendar turned to **July**, the majority of the US was sweltering under a record heat wave. But the same weather pattern that brought heat to much of the lower 48 brought wet weather to the Northwest. But almost right on cue, the temperatures warmed to above normal values on the 6th of July as the eastern heat wave pushed west. Temperatures soared on the 8th to their warmest readings in the Inland Northwest since August 2009. Lewiston topped out at 106 degrees, Moses Lake 105 and Wenatchee at 103, all records for the day. But the combination of all the June rain as well as the air flow from the south resulted in one of the most humid periods in recent memory. Typically the Inland Northwest will have a few "muggy" days in late May or early June, but this year was unusual for its persistence as well as how late in July it was. This led to a week of severe thunderstorms and flash floods. Over 2" of rain fell in 4 hours near Omak on the 15th while debris flows blocked Highway 97 near Malott. But the severe weather on the 20th will be remembered by many Inland NW residents. A line of thunderstorms moved through much of the area bringing large hail and damaging winds along with more flooding. The largest hailstones were baseball-sized and fell near Julieta, ID. Numerous trees were blown down, especially in Ferry County. Two deaths occurred as the result of falling trees. After this event the weather changed dramatically. The rest of the month was dry with warm temperatures.

For as exciting as the weather was in July, **August** was rather boring. The weather was warm and dry. It was the hottest month in the Inland NW since July 2007. Thunderstorms on the morning of the 21st brought lightning and the only rain of the month for most locations.

September was one of the driest and sunniest on record. Spokane, Lewiston, and Wenatchee airports only had a trace of precipitation for the month. For Spokane, this had happened only twice before (1990 and 1999), while in Lewiston this had only happened in 1975 and 1999. While September is often a dry month in the Inland Northwest, we typically get at least a few events of light rain. Throughout this dry month, skies were typically sunny and temperatures were warmer than normal. But since we were so dry, the nighttime lows still dropped into the 30s and 40s. In fact, Pullman-Moscow airport dropped to 28 degrees on the 12th, a record for the day. The main weather event for this month was a dry lightning episode on the evening of the 8th and morning of the 9th, which ignited a number of wildfires. These storms were mainly focused across north central Washington. Strong winds on the 9th and 10th then fanned these flames into larger fires. After the winds subsided, dense smoke from the wildfires

then settled into the valleys resulting in very unhealthy air quality. The strong inversions that are typical in the fall trapped the smoke in the valleys and did not allow it to mix out during the day. Some of the worst conditions were noted in Wenatchee where the visibility was less than 1 mile on several days.

For the early part of **October**, the dry and sunny weather continued. A cool front on the 2nd allowed nighttime temperatures to drop below normal. Nez Perce, ID had a low of 15 degrees on the 7th, which was the earliest in the Fall ever that they had reached that cold temperature. The dry weather set up was eerily similar to the conditions that led to the Spokane firestorm in 1991. The period from August 1st through October 11th was the driest on record at Wenatchee, Ephrata, Omak, and Quincy. Wenatchee Airport recorded 84 consecutive days without measureable rain through October 12th. But in 1991, an extremely strong cold front moved into the region with winds gusting in excess of 60 mph. Thankfully, this year the rains came before the winds. As a result, the fire threat was greatly diminished. The first light rains arrived on the 12th and 13th, with a wetter system on the 14th and 15th. The Panhandle and the Palouse received from a quarter to a half inch of rain from the first front. For the second front, every location received measurable rain, with many locations receiving from a third to a half an inch of rain. Winds behind the second cold front gusted as high as 66 mph near Moses Lake and 60 mph at Uniontown. The recent rains prevented the winds from causing a widespread dust storm or causing existing wildfires to grow much. The remainder of October was markedly different than the previous 85 days. Cool fronts with measurable rain pushed through the area on a regular basis. A particularly cold system on the 23rd brought some snow light amounts of snow to a few valley locations, including 2.3" outside of Winthrop, WA. More low-elevation snow fell on the morning of the 25th. A spotter outside of Kettle Falls received 5" of snow. During this period some locations struggled to reach 40 degrees for a daytime high. One notable event took place at Wenatchee Airport. On the 26th the high was only 43 degrees, which was a record cold day. Just three days later, the temperature warmed to 68 degrees, which was a record high for the day.

November 2012 turned out to be a rather active weather month. Numerous waves of precipitation moved through the Inland Northwest with very few dry spells. Spokane Airport measured precipitation on 17 of the 30 days. The month started with mild temperatures. Low temperatures on the morning of the 4th were equal to what would be a normal high temperature for that day. A low pressure system that developed over Oregon on the 8th, moved into eastern Washington, bringing the first low-land snowfall to many locations. Spokane received 3" of snow, while Spirit Lake, ID picked up 6.5". Temperatures behind this storm dropped well-below freezing. Deer Park reached 11 degrees while La Crosse dropped to 15 degrees. A second system moved into the area on the 12th for more snow across the region. Ephrata received 5" and Colville picked up

4” of snow. But this storm ushered in a change in the weather pattern. Pacific storms moved into the area from the southwest bringing warm and wet weather. This pattern favored precipitation in northeast Washington and the Panhandle, with drier conditions in north-central Washington and the L-C valley. On the 19th and 20th Spokane Airport recorded 1.25” of rain. Snow levels were typically around pass levels so ski resorts picked up some snow, allowing for a few resorts to open on the Thanksgiving weekend. The month finished as it had started, with very mild temperatures.

December was one of those strange winter months where you can have above average temperatures, near-normal precipitation, but still have above average snow. It just reminds us that snowfall in many cases is dependent on a number of factors, and just 1 degree or 1 hour can mean the difference between white vs just wet. The Cascade valleys did especially well in this pattern, creating an impressive snow pack. The start of December started off stormy, but very mild. Temperatures were 10 to 15 degrees above normal with rain on most days, as a storm system off the coast kept sending warm waves of precipitation from the south. As the storm finally moved onshore, the rain changed to snow for some low elevation sites on the 7th. Leavenworth received 7.5” of snow while Clark Fork, ID picked up 9”. In some ways this marked the beginning of winter: many valleys now had snow on the ground that will likely be there until spring, and high temperatures now struggled to make it above freezing during the day. Temperatures remained on the cold side through the middle of the month as weak storm systems continued to bring light precipitation in the form of rain or snow. One such system on the 15th brought 4” to the Waterville Plateau, the Deer Park area, and Rosalia. A stronger system on the morning of the 17th yielded 10 or more inches for northeast Washington and the northern Panhandle, including 15” at Bonners Ferry. Wenatchee and the surrounding Cascades also picked up heavy snow, with 15.5” at Leavenworth. Strong winds behind this storm blew a tree onto a house in south Spokane. The wind gusted to 64 mph in Pullman and 58 mph at Spokane and Coeur d’Alene. A heavy snow storm occurred on the 20th just north of Spokane, with 1 to 2 feet of snow falling overnight. One last chance at a white Christmas arrived just in time as snow fell on the 23rd, bringing 2 to 5” to the Spokane metro area. The month finished out on a quite note as high pressure brought fog and low clouds to the entire region. While Spokane Airport recorded 18.1” of snow, it snowed on 23 of the 31 days.

In summary, despite a marked dry spell in late summer and fall, 2012 was a rather wet year. Spokane’s 21.32” of precipitation was well above the average of 16.30”, and it ranked as the 12th wettest calendar year ever, with records going back to 1881.

Site: Wenatchee, WA (Water Plant)

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average High Temp	35.4	44.2	51.8	64.0	71.5	75.3	91.5	92.0	80.1	62.3	47.6	38.5	63.0
Dep from Normal	-0.5	+0.8	-3.3	-0.2	-1.4	-4.5	+3.3	+4.4	+1.8	-0.4	+1.1	+3.7	+0.6

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average Low Temp	21.9	27.8	32.5	40.4	48.2	53.2	62.7	62.0	52.1	41.3	35.9	30.0	42.4
Dep from Normal	-3.5	+0.1	-1.8	-0.3	-0.6	-2.4	+1.2	+1.5	+0.4	+0.3	+3.7	+4.8	+1.7

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Precipitation	1.36	.74	1.17	.96	.39	.60	.15	.00	.09	1.73	.91	1.94	10.04
Dep from Normal	+.03	-.26	+.56	+.43	-.30	-.06	-.19	-.19	-.21	+1.21	-.47	+.41	+1.41

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Snowfall	12.6	4.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	24.5
Dep from Normal	+8.6	+1.5	-0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.9	1.0	-1.3

Site: Lewiston, ID

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average High Temp	43.6	47.0	53.2	63.8	69.4	77.1	92.6	94.0	83.9	63.3	51.9	43.4	65.4
Dep from Normal	+2.0	+0.5	-1.7	+1.5	-1.5	-1.4	+3.3	+5.2	+5.7	+0.7	+3.7	+3.9	+1.5

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average Low Temp	28.0	31.5	35.2	42.3	45.9	53.9	62.6	60.7	52.8	42.2	38.6	32.8	43.9
Dep from Normal	-1.6	+0.6	-0.4	+2.0	-1.1	+.5	+3.0	+1.5	+1.8	+1.1	+4.5	+4.9	+2.0

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Precipitation	1.75	.85	3.59	1.68	.72	2.03	.64	Tr	Tr	2.15	1.15	0.86	15.42
Dep from Normal	+.67	+.07	+2.44	+.36	-.89	+.79	-.02	-.69	-.67	+1.19	-.03	-.11	+3.27

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Snowfall	12.0	Tr	Tr	Tr	0.0	0.0	0.0	0.0	0.0	0.0	Tr	0.3	12.3
Dep from Normal	+9.6	-2.1	-0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.8	-3.2	+1.9

Site: Spokane, WA

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average High Temp	36.5	38.8	46.4	58.2	65.2	70.0	85.3	86.0	77.7	58.0	44.4	35.8	58.6
Dep from Normal	+2.1	-0.8	-2.5	+1.0	-1.2	-3.8	+2.0	+3.1	+4.8	0.0	+2.8	+3.6	+0.5

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	AVG
Average Low Temp	23.4	26.6	30.9	38.3	42.5	49.2	58.9	57.2	49.1	39.0	33.4	26.7	39.6
Dep from Normal	-1.3	+0.2	-0.7	+1.5	-1.3	-1.2	+2.6	+1.4	+1.7	+1.8	+3.6	+4.2	+1.6

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Precipitation	1.81	1.68	4.56	1.39	.69	2.86	.84	.13	Tr	1.54	3.24	2.58	21.32
Dep from Normal	+.02	+.35	+2.95	+.11	-.93	+1.61	+.20	-.46	-.67	+.36	+.94	+.28	+5.02

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total
Snowfall	11.8	9.4	5.5	1.1	0.0	0.0	0.0	0.0	0.0	Tr	5.9	18.1	51.6
Dep from Normal	+0.4	+2.6	+2.0	+.1	-0.1	0.0	0.0	0.0	0.0	-0.1	-1.5	+3.5	+12.8